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October 3, 2005

Mr. Dale Radford  
Sonoma County Environmental Health Department  
1030 Center Drive, Suite A  
Santa Rosa, CA 95403

**Subject: Results Report for Monitoring Well Reconstruction  
and Monitoring Well Destructutions**  
Pellini Chevrolet  
105 Petaluma Avenue (a.k.a. 6877 Sebastopol Avenue), Sebastopol, California  
Apex Project No. PEL01 002

Dear Mr. Radford:

Apex Envirotech, Inc. (Apex), has been authorized by Pellini Chevrolet (Pellini) to provide this report documenting the results of the reconstruction of one 2-inch diameter groundwater monitoring well (MW-3) into a 4-inch diameter well (MW-3A) and the destruction of eight groundwater monitoring wells (MW-4, MW-6 through MW-9, MW-11 through MW-13), two injection wells (IW-1 and IW-2), and one extraction well (EW-2) at the subject site (Figures 1 and 2). This work was performed in response to the request by the Sonoma County Environmental Health Division (SCEHD) letter dated, August 3, 2004 (Appendix A).

This report is based, in part, on information obtained from Pellini, and is subject to modification as newly acquired information may warrant.

## **BACKGROUND**

April 20, 1987 - Kleinfelder, Inc. (Kleinfelder) removed three underground storage tanks (UST) from the subject property. Subsequent to the UST removal, Kleinfelder installed six monitoring wells at the subject property.

May 17, 1988 – Herzog reported the results of three monitoring well installations and associated activities in a report titled *Supplemental Site Contamination Assessment*.

March 20, 1990 – Details of a pump test performed by Chemical Processors, Inc. of Berkley, California can be found in the document *Groundwater Investigation*. Chemical Processors, Inc. modified extraction well EW-1 and performed a pump test on the improved EW-1. Results of the pump test indicated a sustainable flow rate of 25-gallons per minute and a hydraulic gradient of 0.0014 to 0.0020 feet per foot. In the soil type indicated, this leads to an estimated groundwater flow of 1055 feet per year.

July 1992 - Trans Tech Consultants (TTC) of Santa Rosa, California were retained by Pellini to conduct extraction, treatment, and injection of hydrocarbon contaminated groundwater. From July 1992 through August 1994, only groundwater extraction well EW-1 was utilized due to air permit restrictions. Groundwater was extracted from EW-1 at a flow rate of approximately four gpm for eight hours per day. From August of 1994 through the fourth quarter of 1997, both extraction wells (EW-1 and EW-2) were used to extract groundwater at a combined rate of eight gpm. Extracted groundwater was passed through an air stripper, subjected to granular activated carbon filtration, and re-injected back into the groundwater through injection wells IW-1 and IW-2. The total cumulative flow of treated groundwater was not reported by TTC. Groundwater extraction was ceased in the fourth quarter of 1997 due to declining concentrations of hydrocarbons.

February 1993 - Groundwater remediation was supplemented by soil vapor extraction from monitoring wells MW-1 through MW-5 and MW-9. TTC estimated that by mid August of 1994, approximately 385 gallons of hydrocarbon product had been removed from the soil beneath the subject property using resin bed adsorption technology.

December 1994 - TTC installed a catalytic oxidizing unit to destroy hydrocarbon contamination contained in the soil vapors extracted from beneath the subject property. The catalytic oxidizer operated from April of 1995 through the fourth quarter of 1997. Vapor extraction was ceased due to low influent concentrations.

April 4, 1997, October 31, 1997, and May 2, 1998 - Groundwater samples were collected from monitoring wells MW-3, MW-4, and MW-10. Results of the groundwater analysis are presented in the TTC report *Project Update, April 1997 through September 1998*, dated October 9, 1998. No active remediation or groundwater sampling were conducted between October 9, 1998 and July 29, 1999.

January 30 and 31, 2001 - Apex personnel conducted a soil vapor extraction (SVE) pilot test at the site. Soil vapor concentrations and flow rates were found to be conducive to soil vapor extraction as a remedial alternative. In a report titled, *Soil Vapor Extraction Pilot Test & Updated Final Remediation Plan Results Report*, dated April 9, 2001, Apex proposed SVE, coupled with air sparging as the most feasible and cost-effective means of remediation for this site.

May 10, 2002 – The SCEHD requested a workplan for the installation if a SVE/Air Sparging (AS) remediation system at the site. On June 12, 2002, Apex submitted a workplan describing

the installation of a SVE/AS system at the site. The SCEHD approved the workplan in a letter dated August 1, 2002.

November 14, 2002 - Apex personnel supervised the installation of three air sparge wells (AS-1 through AS-3).

May 2003 - Apex completed the installation of the SVE/AS system at the site. On June 3, 2003, Apex started operation of the SVE and sparge system.

May 6, 2004 – Apex submitted to the SCEHD a report titled, *Annual 2004 Groundwater Monitoring, Remediation Status Report*, recommending that the SVE/AS system be shut down and a “No Further Action” letter be issued for the site.

May 17, 2004 – The SCEHD sent a review letter stating that they could not concur with the recommendations of “No Further Action” at this time, and requesting a revised workplan to address the clean up of the residual groundwater contamination at the site.

May 20, 2004 – Apex and SCEHD, via telephone, concurred that the current SVE/AS system should be shut down immediately, as the influent concentrations no longer warranted its operation. Also, Apex and SCEHD concurred that additional work would be required in the vicinity of well MW-3. Apex then contacted Pellini Chevrolet and requested that they shut down the SVE/AS system.

July 28, 2004 – Apex submitted a workplan titled, *Workplan for Monitoring Well Reconstruction, Additional Monitoring Well Destructions and Remediation System Decommissioning*.

August 3, 2004 – The SCEHD approved the workplan for the reconstruction of one 2-inch diameter groundwater monitoring well (MW-3) into a 4-inch diameter well (MW-3A), the destruction of eight groundwater monitoring wells (MW-4, MW-6 through MW-9, MW-11 through MW-13), two injection wells (IW-1 and IW-2), and one extraction well (EW-2) and the decommission the SVE/AS system.

## **WELL RECONSTRUCTION ACTIVITIES**

On August 3, 2005, Apex personnel supervised the reconstruction of one 2-inch diameter groundwater monitoring well (MW-3) to a 4-inch diameter groundwater monitoring well (MW-3A) at the subject site by Woodward Drilling Co., Inc. of Rio Vista, California. Well MW-3 was overdrilled to approximately 30-feet below grade surface (bgs) using a hollow-stem auger rig. The boring was then continuously cored from 30- to 50-feet bgs for soils classification using the Unified Soil Classification System, field screening using a portable photoionization detector, and sample collection for chemical analysis. All fieldwork was performed according to Apex's Standard Operating Procedures (SOP) included in Appendix B.

Well MW-3A was constructed using four-inch diameter Schedule 40 PVC with 0.020-inch slotted casing. The screened interval extends from 35-feet bgs to 50-feet bgs. The #3 Monterey sand filter pack was placed from one foot above the screened interval to total depth of the well. A two-foot bentonite seal was placed on top of the filter pack followed by a neat cement sanitary seal to the surface. The wellhead was secured with a watertight locking cap, and the well was completed using a flush mounted traffic-rated well box. Well construction details are presented in Table 1 and the boring log and well construction diagram presented as Appendix C. Drill-cuttings were stored on-site in Department of Transportation (DOT) approved 55-gallon drums.

Auger decontamination, development and purge water was temporarily stored on-site in DOT approved 55-gallon drums. The water was properly disposed on August 23, 2005.

## WELL DESTRUCTION ACTIVITIES

On June 13-16, and August 3, 2005, Apex supervised the destruction of eight groundwater monitoring wells (MW-4, MW-6 through MW-9, MW-11 through MW-13), two injection wells (IW-1 and IW-2), and one extraction well (EW-2). The wells were overdrilled to total depth then grouted to the surface using type I-II cement in accordance with SCDEH regulations. No soil or groundwater samples were collected during overdrilling of the wells. Drill-cuttings were stored on-site in DOT approved 55-gallon drums.

Auger decontamination water was temporarily stored on-site in DOT approved 55-gallon drums. The water was properly disposed on August 23, 2005.

## SOIL SAMPLING AND ANALYSIS

All soil samples selected for chemical analysis from boring MW-3A were transported under chain-of-custody (COC) documentation to, California Laboratory Services, of Rancho Cordova, a state-certified analytical laboratory and analyzed for:

Analysis	Abbreviation	Designation	USEPA Method No.
Total Petroleum Hydrocarbons as Gasoline	TPHg	Hydrocarbon	8015 Modified
Benzene	BTEX	Aromatic Volatile Organics	8021B
Toluene			
Ethylbenzene			
Xylenes (Total)			
Tertiary Butyl Alcohol	TBA	Fuel Oxygenates	8260B
Methyl Tertiary Butyl Ether	MTBE		
Di-isopropyl Ether	DIPE		
Ethyl Tertiary Butyl Ether	ETBE		
Tertiary Amyl Methyl Ether	TAME		

In addition, a 4:1 composite soil sample was collected from all the drill-cuttings and submitted

for analysis of the constituents listed in the table above and total lead by EPA Method 6010. Soil analytical results are presented in Table 2. Copies of the laboratory results and COC documentation are presented in Appendix D. All soil generated during drilling activities was removed on August 26, 2005 by Delta Oil Field Services, Inc., of Woodland, California and transported to Forward Landfill in Manteca, California. The waste manifest for soil disposal is included as Appendix E.

## **CONCLUSIONS**

As requested by the SCEHD, Apex has reconstructed one 2-inch groundwater monitoring well (MW-3) into a 4-inch groundwater monitoring well (MW-3A) and destroyed eight groundwater monitoring wells (MW-4, MW-6 through MW-9, MW-11 through MW-13), two injection wells (IW-1 and IW-2), and one extraction well (EW-2). According to the soil analytical results well MW-3A at 30-feet bgs had detectable concentrations of toluene, ethyl benzene and total xylenes (Table 2).

## **RECOMMENDATIONS**

Apex recommends that post-remedial monitoring continue on a quarterly basis for one year from system shutdown to check for potential rebound of contaminants in the remaining wells. If, upon completion of post remedial monitoring, the concentrations of petroleum hydrocarbons in the remaining wells do not increase, Apex will then request that "No Further Action" status be granted for the site.

## **REPORT DISTRIBUTION**

A copy of this report was submitted to:

Regulatory Oversight: Mr. Dale Radford  
Sonoma County Environmental Health Department  
3273 Airway Drive, Ste. D  
Santa Rosa, California 95403-2097  
(707) 565-6565

Ms. Jan Goebel  
North Coast Regional Water Quality Control Board  
5550 Skylane Boulevard, Suite A  
Santa Rosa, California 95403  
(877) 721-9203

Pellini Chevrolet  
Project Manager: Mr. Pete Pellini  
Pellini Chevrolet  
6877 Sebastopol Avenue  
Sebastopol, California 95472  
(707) 823-4700

## REMARKS/SIGNATURES

The information contained within this results report reflects our professional opinions and was developed in accordance with currently available information, and accepted hydrogeologic and engineering practices.

The work described above was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

We appreciate the opportunity to provide Pellini with geologic, engineering and environmental consulting services, and trust this results report meets your needs. If you have any questions or comments, please call us at (916) 851-0174.

Sincerely,

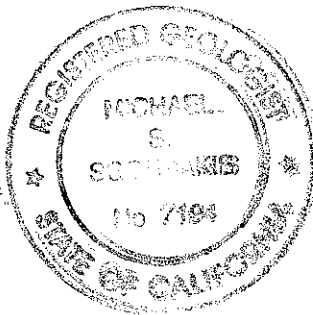
**APEX ENVIROTECH, INC.**



Rebekah A. Westrup  
Project Manager



Michael S. Sgourakis R.G.  
Senior Geologist  
CRG # 7194



**FIGURES:**

FIGURE 1 SITE VICINITY MAP

FIGURE 2 SITE PLAN MAP

**TABLES:**

TABLE 1 WELL CONSTRUCTION DETAILS

TABLE 2 SOIL ANALYTICAL DATA

**APPENDICES:**

APPENDIX A SCEHD LETTER

APPENDIX B APEX STANDARD OPERATING PROCEDURES

APPENDIX C BORING LOG AND WELL CONSTRUCTION DIAGRAM

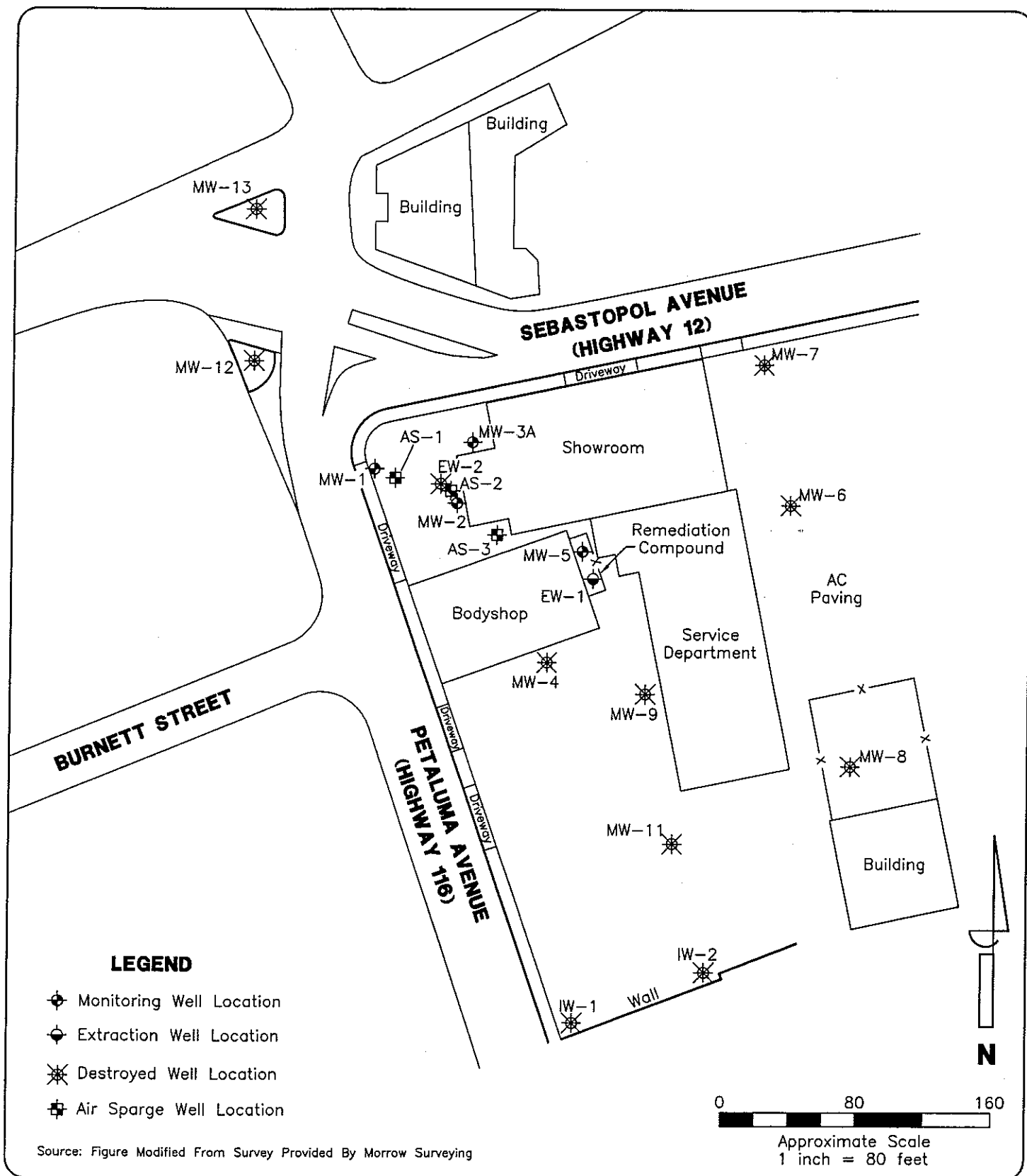
APPENDIX D LABORATORY ANALYTICAL REPORTS AND  
CHAIN OF CUSTODY FORMS


APPENDIX E WASTE MANIFEST



## FIGURES





	DRAWN BY: J. Curry	SITE PLAN MAP	FIGURE  2
	DATE: 9/09/05		
	REVISIONS	Pellini Chevrolet 6877 Sebastopol Avenue Sebastopol, California	PROJECT NUMBER:  PEL01.002

## TABLES

**TABLE 1**  
**WELL CONSTRUCTION DETAILS**

Pellini Chevrolet  
6877 Sebastopol Avenue  
Sebastopol, California

Well Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Casing Diameter (inches)	Screened Interval (feet)	Filter Pack Interval (feet)
MW-1	1987	---	PVC	32.4	32.4	2	---	---
MW-2	1987	---	PVC	34.5	34.5	2	---	---
MW-3	1987	---	PVC	28.2	28.2	2	---	---
MW-3A	8/3/05	---	PVC	50	50	4	35 - 50	34 - 50
MW-4	1987	---	PVC	27.9	27.9	2	---	---
MW-5	1987	---	PVC	29.5	29.5	2	---	---
MW-6	1987	---	PVC	32	32	2	---	---
MW-7	1988	---	PVC	33.53	33.53	2	---	---
MW-8	1988	---	PVC	32	32	2	---	---
MW-9	1988	---	PVC	45.2	45.2	4	---	---
MW-10	by 1997?	---	PVC	40.6	40.6	2	---	---
MW-11	---	---	PVC	37	37	2	---	---
MW-12	---	---	PVC	33.69	33.69	2	---	---
MW-13	---	---	PVC	40	40	2	---	---
EW-1	?	---	PVC	---	---	6	---	---
EW-2	?	---	PVC	36	36	6	---	---
IW-1	by 1992	---	PVC	37	37	4	---	---
IW-2	by 1992	---	PVC	30.5	30.5	4	---	---
AS-1	11/14/02	N/A	PVC	43	43	1	---	---
AS-2	11/14/02	N/A	PVC	43	43	1	---	---
AS-3	11/14/02	N/A	PVC	43	43	1	---	---

**Notes:**

--- = No data found

TOC = Top of Casing

PVC = Polyvinyl Chloride

EW = Extraction Well

IW = Injection Well

Kleinfelder, Inc. installed MW-1 through MW-6

Herzog installed MW-7 through MW-9

Chemical Processors, Inc. modified EW-1 in 1990

- MW-3 was reconstructed into MW-3A

- Grayed wells were destroyed June 13-16 and August 3 2005 by Apex Envirotech, Inc.

**TABLE 2**  
**SOIL ANALYTICAL DATA**

Pellini Chevrolet  
6877 Sebastopol Avenue  
Sebastopol, California

Sample ID	Date of Sampling	TPH as Gasoline (mg/kg)	Aromatic Volatile Organics			Fuel Oxygenates					Lead (mg/kg)	
			Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	DIPE (ug/kg)	ETBE (ug/kg)	MTBE (ug/kg)	TAME (ug/kg)		TBA (ug/kg)
MW-3A-30'	8/3/2005	<1.0	<0.0050	0.030	0.0094	0.076	<5.0	<5.0	<5.0	<5.0	<50	---
MW-3A-34'	8/3/2005	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<5.0	<5.0	<5.0	<5.0	<50	---
SP-1	7/12/2005	4.8	0.0063	0.13	0.074	0.28	<5.0	<5.0	<5.0	<5.0	<50	5.0

Notes:

TPH - Total Petroleum Hydrocarbons  
MTBE - Methyl Tertiary Butyl Ether  
TBA - Tertiary Butyl Alcohol  
DIPE - Di-isopropyl Ether

ETBE - Ethyl Tertiary Butyl Ether  
TAME - Tertiary Amyl Methyl Ether  
ug/kg - micrograms per kilogram  
mg/kg - milligrams per kilogram  
--- - not analyzed

**APPENDIX A**  
**SCEHD LETTER**



pe201.002  
RECEIVED  
AUG - 6 2004  
COUNTY of SONOMA  
DEPARTMENT OF HEALTH SERVICES

FILE COPY

Mark A. Kostielney - Director

Sharon Aguilera - Assistant Director

*Environmental Health Division*

Jonathan J. Krug - Director

August 3, 2004

Mr. Pete Pellini  
Pellini Chevrolet  
6877 Sebastopol Road  
Sebastopol, CA 95472

Re: Review of Work Plan for Monitoring Well Reconstruction, Additional Monitoring Well  
Destructions and Remediation System Decommissioning  
105 Petaluma Avenue (a.k.a. 6877 Sebastopol Rd.), Sebastopol  
Leaking Underground Storage Tank Site  
SCDHS-EHD Site #00001173; NCRWQCB Site #1TSO119; CU Fund Claim #344

Dear Mr. Pellini:

On August 2, 2004, this Department received the referenced work plan dated July 28, 2004 from APEX Envirotech, Inc. Thank you very much for this submittal. We have reviewed the referenced document and generally concur with the work proposed. Please note the following comments and conditions:

1. An approved Application for Drilling Permit is required from this Department prior to the implementation of the work. A separate permit for well destruction must be submitted. An acceptable Site Safety Plan must be submitted for review prior to permit approval. If a Site Safety Plan has been submitted for similar work within the past 24 months, a reference to that plan is acceptable. The reference should include any addendums or changes that pertain to the current proposed work not covered in the previous work plan.
2. Appendix 4 of the County of Sonoma Guidelines for Site Investigations requires that monitoring wells be developed no sooner than 24 hours after construction. Also, wells must be sampled no sooner than 24 hours after development.
3. Pressure grouting for destruction of monitoring wells is not allowed except under extreme circumstances where sufficient justification is provided. The wells proposed for destruction must be over drilled using hollow-stem auger equipment.
4. All contaminated or potentially contaminated materials generated from the investigation or cleanup of this site must be properly disposed and accounted for. Please retain all shipping documents and receipts of disposal of these materials for submittal to this Department.
5. In addition to the analytical suite proposed and the measuring of pH, temperature and conductivity, the wells must also be monitored for dissolved oxygen (DO), carbon dioxide (CO<sub>2</sub>), and oxidation/reduction potential (ORP).
6. It will be necessary to determine appropriate cleanup goals for the constituents of concern and provide a reasonable time frame for attaining those goals using the recommended remediation method. Please include this information in the above-required report.



Mr. Pete Pellini

August 3, 2004

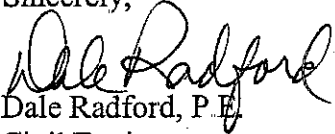
Page 2

**November 8, 2004** has been established for implementation of the work plan and submittal of a report of findings to this Department.

This Department requires notification at least 48 hours prior to performing any work at this site.

Please contact me at (707) 565-6573 or by e-mail at [dradford@sonoma-county.org](mailto:dradford@sonoma-county.org) if you have any questions or wish to discuss this further. My office hours are 7:30 a.m. to 4 p.m., Monday through Thursday.

Sincerely,



Dale Radford, P.E.

Civil Engineer

Leaking Underground Storage Tank

Local Oversight Program

DR

c: Mr. Luis Rivera, North Coast Regional Water Quality Control Board  
Mr. David Charter, SWRCB Cleanup Fund  
Mr. Michael Sgourakis, Apex Envirotech, Inc.  
Ms. Susan Kelly, City of Sebastopol

**APPENDIX B**

**APEX STANDARD OPERATING PROCEDURES**

# **APEX ENVIROTECH, INC.**

## **STANDARD OPERATING PROCEDURE**

### **Monitoring Wells**

#### **SOP - 1** **SOIL BORING SAMPLING**

During drilling, soil samples for chemical analysis are collected in thin-walled brass tubes, of varying diameters and lengths (e.g., 4 or 6 inches long by 2 inches outside diameter). Three or four of the selected tubes, plus a spacer tube, are set in an 18-inch long split-barrel sampler of the appropriate inside-diameter.

Where possible, the split-barrel sampler is driven its entire length either hydraulically or using a 140-pound drop hammer. The sampler is extracted from the borehole and the brass tubes, containing the soil samples, are removed. Upon removal from the sampler, the selected brass tubes are either immediately trimmed and capped with aluminum foil or "Teflon" sheets and plastic caps or the samples are extruded from the tubes and sealed within other appropriate, cleaned sample containers. The samples are then hermetically sealed, labeled, and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. These procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds (VOC) prior to chemical analysis.

One soil sample collected at each sampling interval is analyzed in the field using either a portable photoionization detector (PID), flame ionization detector, organic vapor analyzer, catalytic gas detector, or an explosimeter. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons, and the samples to be analyzed at the laboratory. The soil sample is sealed in either a brass tube, glass jar, or plastic bag to allow for some volatilization of VOC. The PID is then used to measure the concentrations of hydrocarbons within the containers's headspace. The data is recorded on both field notes and the boring logs at the depth corresponding to the sampling point.

Other soil samples are collected to document the soil and/or stratigraphic profile beneath the project site, and estimate the relative permeability of the subsurface materials. All drilling and sampling equipment are either steam cleaned or washed in solution and doubly rinsed in deionized water prior to use at each site and between boreholes to minimize the potential for cross-contamination.

In the event the soil samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Apex's office.

#### **SOP - 3** **SOIL CLASSIFICATION**

Soil samples are classified according to the Unified Soil Classification System. Representative portions of the samples may be submitted, under strict chain-of-custody, to an analytical laboratory for further examination and verification of the in-field classification and analysis of soil mechanical and/or petrophysical properties. The soil types are indicated on logs of either excavations or borings together with depths corresponding to the sampling points and other pertinent information.

#### **SOP - 4** **SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES**

Sample identification and chain-of-custody procedures ensure sample integrity as well as document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on-site personnel, and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

#### **SOP - 5** **LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL**

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;
2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;
3. Standard operating procedures describing routine and periodic instrument maintenance;
4. "Out-of-Control"/Corrective Action documentation procedures; and,
5. Multi-level review of raw data and client reports.

#### **SOP - 6** **HOLLOW-STEM AUGER MONITORING WELL INSTALLATION AND DEVELOPMENT**

Boreholes for monitoring wells are drilled using a truck-mounted, hollow-stem auger drill rig. The borehole diameter will be a minimum of 4 inches larger than the outside diameter of the casing when installing well screen. The hollow-stem auger provides minimal interruption of drilling while permitting

soil sampling at desired intervals. Soil samples are collected by either hammering (with a 140-pound drop hammer) or hydraulically pushing a conventional split-barrel sampler containing pre-cleaned 2-inch-diameter brass tubes. A geologist or engineer from Apex Envirotech, Inc., continuously logs each borehole during drilling and constantly checks drill cuttings for indications of both the first recognizable occurrence of groundwater and volatile hydrocarbons using either a portable photoionization detector, flame ionization detector, or an explosimeter. The sampler is rinsed between samples and either steam cleaned or washed with all other drilling equipment between borings to minimize the potential for cross-contamination.

Monitoring wells are cased with threaded, factory-perforated and blank Schedule 40 PVC. The perforated interval consists of slotted casing, generally with 0.020-inch wide by 1.5-inch long slots, with 42 slots per foot. A PVC cap may be secured to the bottom of the casing with stainless steel screws; no solvents or cements are used. Centering devices may be fastened to the casing to ensure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and/or steam cleaned, or may be purchased as pre-cleaned, prior to installation.

After setting the casing inside the hollow-stem auger, sand or gravel filter material is poured into the annular space to fill from boring bottom to generally 1 foot above the perforated interval. A 1- to 2-foot thick bentonite plug is set above this filter material to prevent grout from infiltrating the filter pack. Either neat cement, containing about 5 percent bentonite, or sand-cement grout is then tremied into the annular space from the top of the bentonite plug to near surface. A traffic-rated vault is installed around each wellhead for wells located in parking lots or driveways, while steel "stovepipes" are usually set over wellheads in landscaped areas.

After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore, and to improve well performance by removing fine material from the filter pack that may pass into the well. Well development techniques used may include pumping, surging, bailing, swabbing, jetting, flushing and air-lifting. All development water is collected either in drums or tanks for temporary storage, and properly disposed of depending on laboratory analytical results. To minimize the potential for cross-contamination between wells, all development equipment is either steam cleaned or properly washed prior to use. Following development, the well is allowed to stand undisturbed for a minimum of 24 hours before its first sampling.

#### **SOP - 7 GROUNDWATER PURGING AND SAMPLING**

Prior to water sampling, each well is purged by evacuating a minimum of three wetted well-casing volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity, or pH stabilize, a maximum of ten wetted-casing volumes of groundwater have been recovered, or the well is bailed dry. When practical, the groundwater sample should be collected when the water level in the well recovers to at least 80 percent of its static level.

The sampling equipment consists of either a "Teflon" bailer, PVC bailer, or stainless steel bladder pump with a "Teflon" bladder. If the sampling system is dedicated to the well, then the bailer is usually "Teflon," but the bladder pump is PVC with a polypropylene bladder. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic

analysis (VOA) vials, with "Teflon" septa are used as sample containers.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information should include a unique sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected from each well. This sample may also be analyzed or put on hold at the laboratory. When required, a trip blank, prepared at the laboratory, is placed in the transport cooler. It is labeled similar to the well samples, remains in the cooler during transport, and is analyzed by the laboratory along with the groundwater samples. In addition, a field blank may be prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been either steam cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of the in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam cleaned or properly washed between use. As a secondary precautionary measure, wells are sampled in order of least to highest concentrations as established by available previous analytical data.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on water ice in a cooler, such as when in the field, or in refrigerator at Apex's office.

#### **SOP - 12 MEASURING LIQUID LEVELS USING WATER LEVEL METER OR INTERFACE PROBE**

Field equipment used for liquid-level gauging typically includes the measuring instrument (water-level meter or interface probe) and product bailer(s). The field kit also includes cleaning supplies (buckets, solution, spray bottles, and deionized water) to be used in cleaning the equipment between wells.

Prior to measurement, the instrument tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "Measured Total Depth" of the well.

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water (DTW) indication and the DTW measurement is made accordingly. The steady tone indicates floating liquid hydrocarbons (FLH). In this case, the probe is slowly raised until the steady tone ceases. This is the depth-to-product (DTP) indication and the DTP measurement is made accordingly.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When FLH are indicated by the probe's response, a product bailer is lowered partially through the FLH-water interface to confirm the FLH on the water surface and as further indication of the FLH thickness, particularly in cases where the FLH layer is quite thin. This measurement is recorded on the data sheet as "FLH thickness."

In order to avoid cross-contamination of wells during the liquid-level measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's use.

**APPENDIX C**

**BORING LOG AND WELL CONSTRUCTION DIAGRAM**



Project: Pellini Chevrolet Location: 6877 Sebastopol Avenue  
 Date Drilled: 8-3-05 Logged By: Cheryl Martin Project #: PEL01.002  
 Drilling Company: Woodward Drilling Co. Inc Driller: Amador Method: Hollow Stem Auger  
 Bore Hole Diameter: 10 In. Depth Drilled: 50.0 Ft. Depth To Water: Initial: 35.5 Ft. Static: Ft.  
 Casing Type: PVC Diameter: 4 In. Schedule: 40 Interval: 0.5 Ft. To: 35 Ft.  
 Screen Type: PVC Diameter: 4 In. Slot Size: 0.020 In. Interval: 35 Ft. To: 50 Ft.  
 Filter Pack Type: #3 Sand Interval: 34 Ft. To: 50 Ft.  
 Seal Type: Bentonite Interval: 32 Ft. To: 34 Ft.  
 Grout Type: Type I-II Interval: 1.5 Ft. To: 32 Ft.

Well Detail	Depth (Ft.)	PID (PPM)	Sample ID Blowcount	Lithologic Log	Description
	2				
	4				
	6				
	8				
	10				
	12				
	14				
	16				
	18				
	20				
	22				
	24				
	26				
	28				
	30	0.0	20 50/6	SW	Gravelly Sand, Moderate Olive Brown, Well Graded, Fine To Very Coarse Sand, Angular To Rounded, Very Fine To Medium Gravel, Angular To Subrounded, Loose, Damp, No Odor
	32	3.7	15 50/6	SP	Sand W/Gravel, Moderate Olive Brown, Poorly Graded, Medium Sand, Subangular To Subrounded, Fine Gravel, Subangular To Subrounded, Loose, Moist, Slight Odor
	34	0.0	26 50/6		Fine Sand
	36	4.5	28 50/6		Wet
	38	0.0	28 50/4		No Odor
	40			CL	Clay, Dusky Yellow, Slightly Plastic, Moderately Stiff, Damp

See Previous Log Data For Soil Details For First 30 Feet (MW-3)



11244 Pyrites Way  
Gold River, Ca 95670

BORING/WELL NO: MW-3A

Project: Pellini Chevrolet

Location: 6877 Sebastopol Avenue  
Sebastopol, California

Project # PEL01.002

Comments:

Page 2 of 2

Well Detail	Depth (Ft.)	PID (PPM)	Sample ID Blowcount	Lithologic Log	Description
			50/6 <input type="checkbox"/>	CL	No Recovery
	42	0.0	26 <input type="checkbox"/> 50/5 <input type="checkbox"/>	SW	Sand W/Gravel, Moderate Olive Brown, Well Graded, Very Fine To Very Coarse Sand, Angular To Rounded, Very Fine Gravel, Angular To Subrounded Loose, Wet To Saturated Becoming Well Graded At 42' Bgs, Medium Sand, Fine Gravel No Odor
	44		12 <input type="checkbox"/> 50/2 <input type="checkbox"/>		
	46		50/6 <input type="checkbox"/>	SP	
	48		50/6 <input type="checkbox"/>		Moderate Olive Brown/Olive Gray, Well Graded, Medium To Very Coarse Sand, Subangular To Rounded, Very Fine To Medium Gravel, Wet, No Odor
	50				
	52				
	54				
	56				
	58				
	60				
	62				
	64				
	66				
	68				
	70				
	72				
	74				
	76				
	78				
	80				

### LEGEND

Explanation:

- Water Level During Drilling
- Water Level In Completed Well
- Location Of Recovered Drill Sample
- Location Of Sample Sealed For Chemical Analysis
- NR No Recovery
- Grout
- Bentonite
- Sand
- Screen

Contacts:

- Solid Where Certain
- Dotted Where Approximate
- Dashed Where Uncertain
- Hachured Where Gradational



## **APPENDIX D**

### **LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS**

CLS - Labs

CHAIN OF CUSTODY

CLS ID NO.: CCH0286

LOG NO. 53579

REPORT TO:		CLIENT JOB NUMBER		ANALYSIS REQUESTED		GEOTRACKER:	
NAME AND ADDRESS Apex Environmental, Inc. 11244 Rydicks Way		PELOI.002		EDF REPORT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		GLOBAL ID: T0601700089	
PROJECT MANAGER Katherine Westrup 916-851-0174		DESIGNATION LABORATORY		COMPOSITE:		FIELD CONDITIONS:	
PROJECT NAME Pellini Chevrolet		X CLS (916) 638-7301 3248 FITZGERALD RD. RANCHO CORDOVA, CA. 95742		TURN AROUND TIME		SPECIAL INSTRUCTIONS	
SAMPLED BY Cher, I. Markin		<input type="checkbox"/> OTHER		DAY 1 DAY 2 DAY 3 DAY 10		OR ALT. ID:	
JOB DESCRIPTION install groundwater monitoring well		CONTAINER NO. TYPE		MW-3A		MW-3A	
SITE LOCATION 6877 Schenck Ave, Sebastopol CA		MATRIX NO.		Soil		Soil	
DATE TIME IDENTIFICATION SAMPLE		8-3-05 18:42 MW-3A - 30'		8-3-05 18:55 MW-3A - 34'			
SUSPECTED CONSTITUENTS		PRINT NAME / COMPANY		DATE / TIME		PRESERVATIVES	
RELINQUISHED BY (SIGN) <i>[Signature]</i>		Cher, I. Markin / Apex		8-9-05 / 12:55		(1) HCL (2) HNO <sub>3</sub> (3) COLD (4) = NaOH (5) = H <sub>2</sub> SO <sub>4</sub> (6) = Na <sub>2</sub> SO <sub>4</sub> (7) =	
RECD AT LAB BY <i>[Signature]</i>		DATE / TIME 8/9/05 0840		CONDITIONS / COMMENTS 28		AIR BILL #	
SHIPPED BY: <input type="checkbox"/> UPS <input type="checkbox"/> FED X <input type="checkbox"/> OTHER		DATE / TIME 8/9/05 0840		CONDITIONS / COMMENTS 28		AIR BILL #	

LAB

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

August 15, 2005

CLS Work Order #: COH0286  
COC #: 53579

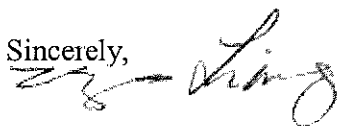
Rebekah Westrup  
APEX Envirotech Inc. - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

**Project Name: Pellini Chevrolet**

Enclosed are the results of analyses for samples received by the laboratory on 08/08/05 08:40. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

08/15/05 09:38

APEX Envirotech Inc. - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COH0286  
COC #: 53579

## Gas/BTEX by GC PID/FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3A-30' (COH0286-01) Soil</b> Sampled: 08/03/05 18:42 Received: 08/08/05 08:40									
Gasoline	ND	1000	µg/kg	1	CO06051	08/10/05	08/10/05	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	30	5.0	"	"	"	"	"	"	
Ethylbenzene	9.4	5.0	"	"	"	"	"	"	
Xylenes (total)	76	10	"	"	"	"	"	"	
<i>Surrogate o-Chlorotoluene (Gas)</i> 97.1 % 65-135 " " " "									
<b>MW-3A-34' (COH0286-02) Soil</b> Sampled: 08/03/05 18:55 Received: 08/08/05 08:40									
Gasoline	ND	1000	µg/kg	1	CO06051	08/10/05	08/10/05	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
<i>Surrogate o-Chlorotoluene (Gas)</i> 96.6 % 65-135 " " " "									

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# CALIFORNIA LABORATORY SERVICES

08/15/05 09:38

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL 01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COH0286  
COC #: 53579

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3A-30' (COH0286-01) Soil</b> Sampled: 08/03/05 18:42 Received: 08/08/05 08:40									
Di-isopropyl ether	ND	5.0	µg/kg	1	CO06021	08/10/05	08/10/05	EPA 8260B	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate Toluene-d8		91.6 %	60-140		"	"	"	"	
<b>MW-3A-34' (COH0286-02) Soil</b> Sampled: 08/03/05 18:55 Received: 08/08/05 08:40									
Di-isopropyl ether	ND	5.0	µg/kg	1	CO06021	08/10/05	08/10/05	EPA 8260B	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
Surrogate Toluene-d8		93.8 %	60-140		"	"	"	"	

# CALIFORNIA LABORATORY SERVICES

08/15/05 09:38

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COH0286  
COC #: 53579

## Gas/BTEX by GC PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Batch CO06051 - EPA 5030 Soil GC

#### Blank (CO06051-BLK1)

Prepared & Analyzed: 08/10/05

Gasoline	ND	1000	µg/kg							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Xylenes (total)	ND	10	"							
Surrogate o-Chlorotoluene (BTEX)	95.4		"	100		95.4	65-135			
Surrogate o-Chlorotoluene (Gas)	98.0		"	100		98.0	65-135			

#### LCS (CO06051-BS1)

Prepared & Analyzed: 08/10/05

Gasoline	2430	1000	µg/kg	2500		97.2	65-135			
Surrogate o-Chlorotoluene (Gas)	103		"	100		103	65-135			

#### LCS Dup (CO06051-BS1)

Prepared & Analyzed: 08/10/05

Gasoline	2270	1000	µg/kg	2500		90.8	65-135	6.81	30	
Surrogate o-Chlorotoluene (Gas)	92.3		"	100		92.3	65-135			

#### Matrix Spike (CO06051-MS1)

Source: COH0289-01

Prepared & Analyzed: 08/10/05

Gasoline	2220	1000	µg/kg	2500	ND	88.8	63-124			
Surrogate o-Chlorotoluene (Gas)	98.7		"	100		98.7	65-135			

#### Matrix Spike Dup (CO06051-MSD1)

Source: COH0289-01

Prepared & Analyzed: 08/10/05

Gasoline	2310	1000	µg/kg	2500	ND	92.4	63-124	3.97	35	
Surrogate o-Chlorotoluene (Gas)	100		"	100		100	65-135			

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# CALIFORNIA LABORATORY SERVICES

08/15/05 09:38

APEX Envirotech Inc. - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COH0286  
COC #: 53579

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch CO06021 - EPA 5030 Soil MS</b>										
<b>Blank (CO06021-BL K1)</b>				Prepared & Analyzed: 08/10/05						
Di-isopropyl ether	ND	5.0	µg/kg							
Ethyl tert-butyl ether	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
tert-Amyl methyl ether	ND	5.0	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate Toluene-d8	45.1		"	50.0		90.2	60-140			
<b>LCS (CO06021-BS1)</b>				Prepared & Analyzed: 08/10/05						
Methyl tert-butyl ether	37.9	5.0	µg/kg	50.0		75.8	60-140			
Surrogate Toluene-d8	47.4		"	50.0		94.8	60-140			
<b>LCS Dup (CO06021-BSD1)</b>				Prepared & Analyzed: 08/10/05						
Methyl tert-butyl ether	35.6	5.0	µg/kg	50.0		71.2	60-140	6.26	30	
Surrogate Toluene-d8	45.8		"	50.0		91.6	60-140			
<b>Matrix Spike (CO06021-MS1)</b>				Source: COH0391-02	Prepared & Analyzed: 08/10/05					
Methyl tert-butyl ether	36.7	5.0	µg/kg	50.0	ND	73.4	60-140			
Surrogate Toluene-d8	46.5		"	50.0		93.0	60-140			
<b>Matrix Spike Dup (CO06021-MSD1)</b>				Source: COH0391-02	Prepared & Analyzed: 08/10/05					
Methyl tert-butyl ether	38.9	5.0	µg/kg	50.0	ND	77.8	60-140	5.82	30	
Surrogate Toluene-d8	50.4		"	50.0		101	60-140			

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# CALIFORNIA LABORATORY SERVICES

08/15/05 09:38

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

**CLS Work Order #: COH0286**  
COC #: 53579

## Notes and Definitions

DEI	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



CLS ID No.: 507 6639 LOG NO. 53560



# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

June 24, 2005

CLS Work Order #: COF0639  
COC #: 53560

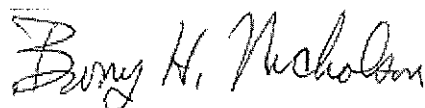
Rebekah Westrup  
APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

**Project Name: Pellini Chevrolet**

Enclosed are the results of analyses for samples received by the laboratory on 06/17/05 11:35.  
Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

  
FOR JAMES LIANG

James Liang, Ph.D. Barry Nicholson  
Laboratory Director Quality Assurance Manager

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

06/24/05 09:59

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Gas/BTEX by GC PID/FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-1 (A-C Comp) (COF0639-04) Soil Sampled: 06/15/05 22:00 Received: 06/17/05 11:35									
Gasoline	4800	1000	µg/kg	1	CO04613	06/17/05	06/17/05	8015M/8021B	GC-25
Benzene	6.3	5.0	"	"	"	"	"	"	
Toluene	130	5.0	"	"	"	"	"	"	
Ethylbenzene	74	5.0	"	"	"	"	"	"	
Xylenes (total)	280	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)									
		167 %	65-135		"	"	"	"	S-04

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# CALIFORNIA LABORATORY SERVICES

06/24/05 09:59

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-1 (A-C Comp) (COF0639-04) Soil    Sampled: 06/15/05 22:00    Received: 06/17/05 11:35									
Lead	5.0	2.5	mg/kg	1	CO04650	06/21/05	06/21/05	EPA 6010B	

CA DOHS ELAP Accreditation/Registration Number 1233

# CALIFORNIA LABORATORY SERVICES

06/24/05 09:59

APEX Envirotech Inc. - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEI 01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-1 (A-C Comp) (COF0639-04) Soil Sampled: 06/15/05 22:00 Received: 06/17/05 11:35									
Di-isopropyl ether	ND	5.0	µg/kg	1	CO04578	06/17/05	06/17/05	EPA 8260B	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	50	"	"	"	"	"	"	

Surrogate Toluene-d8		106 %	60-140	"	"	"	"	
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Fax: 916-638-4510

# CALIFORNIA LABORATORY SERVICES

06/24/05 09:59

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEI 01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Gas/BTEX by GC PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch CO04613 - EPA 5030 Soil GC

#### Blank (CO04613-BLK1)

Prepared & Analyzed: 06/17/05

Gasoline	ND	1000	µg/kg							
Benzene	ND	50	"							
Toluene	ND	50	"							
Ethylbenzene	ND	50	"							
Xylenes (total)	ND	10	"							
Surrogate o-Chlorotoluene (BTEX)	97.0		"	100		97.0	65-135			
Surrogate o-Chlorotoluene (Gas)	93.3		"	100		93.3	65-135			

#### LCS (CO04613-BS1)

Prepared & Analyzed: 06/17/05

Benzene	114	50	µg/kg	100		114	69-120			
Toluene	113	50	"	100		113	74-120			
Ethylbenzene	117	50	"	100		117	76-121			
Xylenes (total)	332	10	"	300		111	81-121			
Surrogate o-Chlorotoluene (BTEX)	96.6		"	100		96.6	65-135			

#### LCS Dup (CO04613-BS1)

Prepared & Analyzed: 06/17/05

Benzene	112	50	µg/kg	100		112	69-120	1.77	30	
Toluene	113	50	"	100		113	74-120	0.00	30	
Ethylbenzene	117	50	"	100		117	76-121	0.00	30	
Xylenes (total)	318	10	"	300		106	81-121	4.31	30	
Surrogate o-Chlorotoluene (BTEX)	94.5		"	100		94.5	65-135			

#### Matrix Spike (CO04613-MS1)

Source: COF0639-04

Prepared & Analyzed: 06/17/05

QM-05

Benzene	86.0	50	µg/kg	100	6.3	79.7	51-123			
Toluene	178	50	"	100	130	48.0	61-123			
Ethylbenzene	141	50	"	100	74	67.0	65-124			
Xylenes (total)	345	10	"	300	280	21.7	66-125			
Surrogate o-Chlorotoluene (BTEX)	81.3		"	100		81.3	65-135			

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Fax: 916-638-4510

# CALIFORNIA LABORATORY SERVICES

06/24/05 09:59

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Gas/BTEX by GC PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch CO04613 - EPA 5030 Soil GC

Matrix Spike Dup (CO04613-MSD1)	Source: COF0639-04		Prepared & Analyzed: 06/17/05						QM-05
Benzene	86.4	5.0	µg/kg	100	6.3	80.1	51-123	0.464	30
Toluene	192	5.0	"	100	130	62.0	61-123	7.57	30
Ethylbenzene	151	5.0	"	100	74	77.0	65-124	6.85	30
Xylenes (total)	330	10	"	300	280	16.7	66-125	4.44	30
Surrogate: o-Chlorotoluene (BTEX)	75.9		"	100		75.9	65-135		

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# CALIFORNIA LABORATORY SERVICES

06/24/05 09:59

APEX Envirotech Inc - Gold River  
11244 Pyrites Way  
Gold River, CA 95670

Project: Pellini Chevrolet  
Project Number: PEL01 002  
Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch CO04650 - EPA 3050B</b>										
<b>Blank (CO04650-BLK1)</b>				Prepared & Analyzed: 06/21/05						
Lead	ND	2.5	mg/kg							
<b>LCS (CO04650-BS1)</b>				Prepared & Analyzed: 06/21/05						
Lead	24.5	2.5	mg/kg	25.0		98.0	75-125			
<b>LCS Dup (CO04650-BSD1)</b>				Prepared & Analyzed: 06/21/05						
Lead	24.0	2.5	mg/kg	25.0		96.0	75-125	2.06	25	
<b>Matrix Spike (CO04650-MS1)</b>				<b>Source: COF0591-01</b>		Prepared & Analyzed: 06/21/05				
Lead	24.6	2.5	mg/kg	25.0	3.5	84.4	75-125			
<b>Matrix Spike Dup (CO04650-MSD1)</b>				<b>Source: COF0591-01</b>		Prepared & Analyzed: 06/21/05				
Lead	25.0	2.5	mg/kg	25.0	3.5	86.0	75-125	1.61	30	

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3249 Fitzgerald Road Rancho Cordova, CA 95742

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Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch CO04578 - EPA 5030 Soil MS</b>										
<b>Blank (CO04578-BLK1)</b>				Prepared & Analyzed: 06/17/05						
Di-isopropyl ether	ND	5.0	µg/kg							
Ethyl tert-butyl ether	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
tert-Amyl methyl ether	ND	5.0	"							
Tert-butyl alcohol	ND	5.0	"							
Surrogate: Toluene-d8	52.5		"	50.0		105	60-140			
<b>LCS (CO04578-BS1)</b>				Prepared & Analyzed: 06/17/05						
Methyl tert-butyl ether	52.3	5.0	µg/kg	50.0		105	60-140			
Surrogate: Toluene-d8	50.3		"	50.0		101	60-140			
<b>LCS Dup (CO04578-BSD1)</b>				Prepared & Analyzed: 06/17/05						
Methyl tert-butyl ether	53.4	5.0	µg/kg	50.0		107	60-140	2.08	30	
Surrogate: Toluene-d8	52.2		"	50.0		104	60-140			
<b>Matrix Spike (CO04578-MS1)</b>				Source: COF0487-10		Prepared & Analyzed: 06/17/05				
Methyl tert-butyl ether	50.3	5.0	µg/kg	50.0	ND	101	60-140			
Surrogate: Toluene-d8	51.5		"	50.0		103	60-140			
<b>Matrix Spike Dup (CO04578-MSD1)</b>				Source: COF0487-10		Prepared & Analyzed: 06/17/05				
Methyl tert-butyl ether	62.6	5.0	µg/kg	50.0	ND	125	60-140	21.8	30	
Surrogate: Toluene-d8	50.8		"	50.0		102	60-140			

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Project Manager: Rebekah Westrup

CLS Work Order #: COF0639  
COC #: 53560

## Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

GC-25 Weathered gasoline

DEI Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

## **APPENDIX E**

### **WASTE MANIFEST**

☐ **Keller Canyon  
Sanitary Landfill**  
901 Bailey Road  
Pittsburg, CA 94565  
Phone (925) 458-9800  
Fax (925) 458-9891

☐ **Ox Mountain  
Sanitary Landfill**  
12310 San Mateo Road  
Half Moon Bay, CA 94019  
Phone (650) 726-1819  
Fax (650) 726-9183

☐ **Newby Island  
Sanitary Landfill**  
1601 Dixon Landing Road  
Milpitas, CA 95035  
Phone (408) 945-2800  
Fax (408) 262-2871

☒ **Forward  
Landfill**  
9999 S. Austin Road  
Manteca, CA 95336  
Phone (209) 982-4298  
Fax (209) 982-1009

### NON-HAZARDOUS WASTE MANIFEST

GENERATOR <u>Pellini Chevrolet</u>		WASTE ACCEPTANCE NO. <u>- 5703</u>	
MAILING ADDRESS <u>6877 Sebastopol</u>			
CITY, STATE, ZIP <u>SEBASTOPOL, CA</u>		REQUIRED PERSONAL PROTECTIVE EQUIPMENT	
PHONE <u>916-851-0174</u>		<input type="checkbox"/> GLOVES <input type="checkbox"/> GOGGLES <input type="checkbox"/> RESPIRATOR <input checked="" type="checkbox"/> HARD HAT	
CONTACT PERSON <u>Cheryl Martin</u>		<input type="checkbox"/> TY-VEK <input type="checkbox"/> OTHER	
SIGNATURE OF AUTHORIZED AGENT / TITLE <u>* Agent For Generator</u> <u>RCP</u>		DATE <u>8-26-05</u>	
GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or title 22 of the California code of regulations, has been properly described, classified and packaged and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.			
WASTE TYPE:		RECEIVING FACILITY <u>FORWARD</u>	
<input type="checkbox"/> DISPOSAL <u>Metal Drum</u> <input type="checkbox"/> SLUDGE			
<input type="checkbox"/> CONSTRUCTION <u>20</u> <input type="checkbox"/> WOOD			
<input type="checkbox"/> DEBRIS <u>X</u> <input type="checkbox"/> OTHER <u>SOIL</u>			
<input type="checkbox"/> SPECIAL WASTE			
GENERATING FACILITY <u>Pellini Chevrolet</u>			
TRANSPORTER <u>DELTA OILFIELD SVCS</u>		NOTES:	VEHICLE LICENSE NUMBER <u>9B46868</u>
ADDRESS <u>1201 E. Kentucky Ave</u>			TRUCK NUMBER <u>52</u>
CITY, STATE, ZIP <u>WOODLAND CA 95776</u>			
PHONE <u>530-1662-2841</u>			
SIGNATURE OF AUTHORIZED AGENT OR DRIVER <u>* RCP</u>		END DUMP <input checked="" type="checkbox"/>	BOTTOM DUMP <input type="checkbox"/>
DATE <u>8-26-05</u>		ROLL-OFF(S) <input type="checkbox"/>	TRANSFER <input type="checkbox"/>
		FLAT-BED <input type="checkbox"/>	VAN <input type="checkbox"/>
			DRUMS <input type="checkbox"/>
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.		CUBIC YARDS <u>20 Drum</u>	
REMARKS		DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)	
FACILITY TICKET NUMBER		DISPOSE	
SIGNATURE OF AUTHORIZED AGENT <u>* [Signature]</u>		OTHER	
DATE		<input type="checkbox"/> SOIL	
		<input type="checkbox"/> CONSTRUCTION DEBRIS	
		<input type="checkbox"/> NON-FRIABLE ASBESTOS	
		<input type="checkbox"/> WOOD	
		<input type="checkbox"/> ASH	
		<input type="checkbox"/> SPECIAL OTHER	

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL • ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.